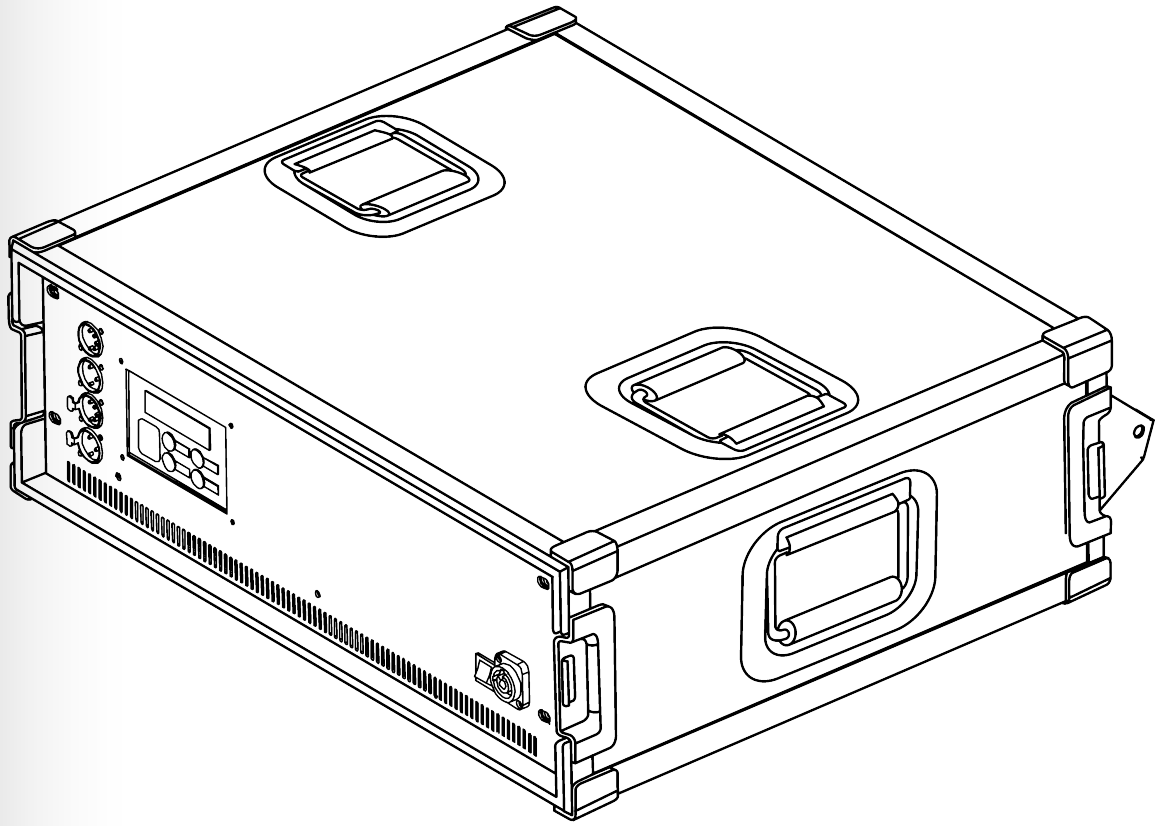
Amhaze™

User Manual



CHAUVET®

Edition Notes

The AmHaze™ User Manual Rev. 01g covers the description, safety precautions, installation, programming, operation, and maintenance of the AmHaze™. CHAUVET® released this edition of the AmHaze™ User Manual in June 2011.

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For better results, print this document in color, on letter size paper (8.5 x 11 inches), double sided. If using A4 paper (210 x 297 mm), configure your printer to scale the content accordingly.

Intended Audience

Any person in charge of installing, operating, and/or maintaining this product should read the guide that shipped with it as well as this manual in their entirety before installing, operating, or maintaining this product.

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Document Revision

The AmHaze™ User Manual Rev. 01g supersedes all previous versions of this manual. Please discard any older versions of this manual you may have, whether in printed or electronic format, and replace them with this version.

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NOTES

1. Before You Begin

What is Included

- One AmHaze™ with flight case
- One power cord (2 m)
- One fluid tank (5 liter)
- One Warranty Card
- One User Manual

Unpacking Instructions

Immediately upon receiving this product, carefully unpack it and check the container in which you received it. Make sure that you have received all the parts indicated above and that they are all in good condition. If the material inside the container (this product and any other accessory included with it) appears damaged from shipping, or if the container shows signs of mishandling, notify the shipper immediately. In addition, retain the container and all the packing material for inspection.

See the *Claims* section in the *Technical Information* chapter.

Typographic Conventions

Convention	Meaning
1~512	A range of values in the text
50/60	A set of mutually exclusive values in the text
Claims	A new term, or a section or chapter in this document
“COLORado™ 1 UM”	The name of another publication or manual
<SET>	A button on the product’s control panel
Settings	A product function or a menu option
MENU > Settings	A sequence of menu options
1~10	A range of menu values from which to choose in a menu
Yes/No	A set of two mutually exclusive menu options in a menu
ON	A unique value to be entered or selected in a menu

Icon Meaning

Icon	Meaning
	This icon indicates critical installation, configuration, or operation information. Failure to comply with this information may render the product partially or completely inoperative, damage third-party equipment, or cause harm to the user.
	This icon indicates important installation or configuration information. Failure to comply with this information may prevent the product from functioning correctly.
	This icon indicates useful, although non-critical information.

The term “DMX” used throughout this document refers to the USITT DMX512-A transmission protocol.

Product at a Glance

Use on Dimmer	X	Auto Programs	X
Outdoor Use	X	Auto-ranging Power Supply	X
Sound Activated	X	Resettable Breaker	P
DMX	P	User Serviceable	X
Master/Slave	X	Duty Cycle	X

Safety Notes

There is risk of burns or electric shock while operating this product.

Please read the following notes carefully before working with this product because they include important safety information about the installation, usage, and maintenance of this product.

There are no user serviceable parts inside this product. Any reference to servicing it you may find from now on in this User Manual will only apply to properly CHAUVET® certified technicians. Do not open the housing or attempt any repairs unless you are one of them.

Please refer to all applicable local codes and regulations for the proper installation of this product.

Personal Safety

- ALWAYS disconnect this product from its power source before cleaning.
- ALWAYS connect this product to a grounded circuit to avoid the risk of electrocution.
- DO NOT touch the output nozzle on this product. It is very hot during operation and it may remain hot for several hours after turning the unit off.
- DO NOT add any flammable liquid (alcohol, perfume, oil, gasoline, etc.) to the fog liquid.
- DO NOT drink the fog liquid. If ingested, call a doctor at once.
- DO NOT allow the fog liquid to touch your skin or eyes. Rinse affected area with plenty of water and call a doctor.

Mounting and Rigging

- DO NOT install this product where it may be exposed to rain or moisture.
- DO NOT hang this product.
- DO NOT mount this product on a flammable surface (e.g., wood, linoleum, carton, plastic, or carpet).
- ALWAYS install this product in a location with adequate ventilation, at least 20 in (50 cm) from adjacent surfaces.
- ALWAYS make sure that there are no flammable materials close to the unit while operating.
- ALWAYS use the handles to carry this product.

Power and Wiring

- NEVER connect this product to a dimmer pack or rheostat.
- NEVER disconnect this product by pulling or tugging on the power cable.
- ALWAYS make sure that you are connecting this product to the proper voltage, as per the specifications in this manual or on the product's sticker.

Operation

- DO NOT operate this product if you see damage on the housing, fluid tank, or cables. In any of these cases, have the damaged parts replaced by an authorized technician at once.
- DO NOT cover the ventilation slots when this product is operating to avoid internal overheating.
- ALWAYS empty this product before storing or transporting it.
- The maximum ambient temperature (Ta) is 104° F (40° C). DO NOT operate this product at a higher temperature.
- In case of a serious operating problem, stop using this product immediately!
- Depending on the amount of fog/haze generated, all fog machines may set off smoke detectors.

In the unlikely event that your CHAUVET® product may require service, please contact CHAUVET® Technical Support.

2. Introduction

Product Description

The AmHaze™ is a professional, water-based, DMX controllable haze machine that provides continuous output with various degrees of density.

It consists of a chassis that contains the pump, fan, power supply, DMX connections, and control panel. It comes installed in a stackable flight case that also provides room to keep the fluid tank during operation.

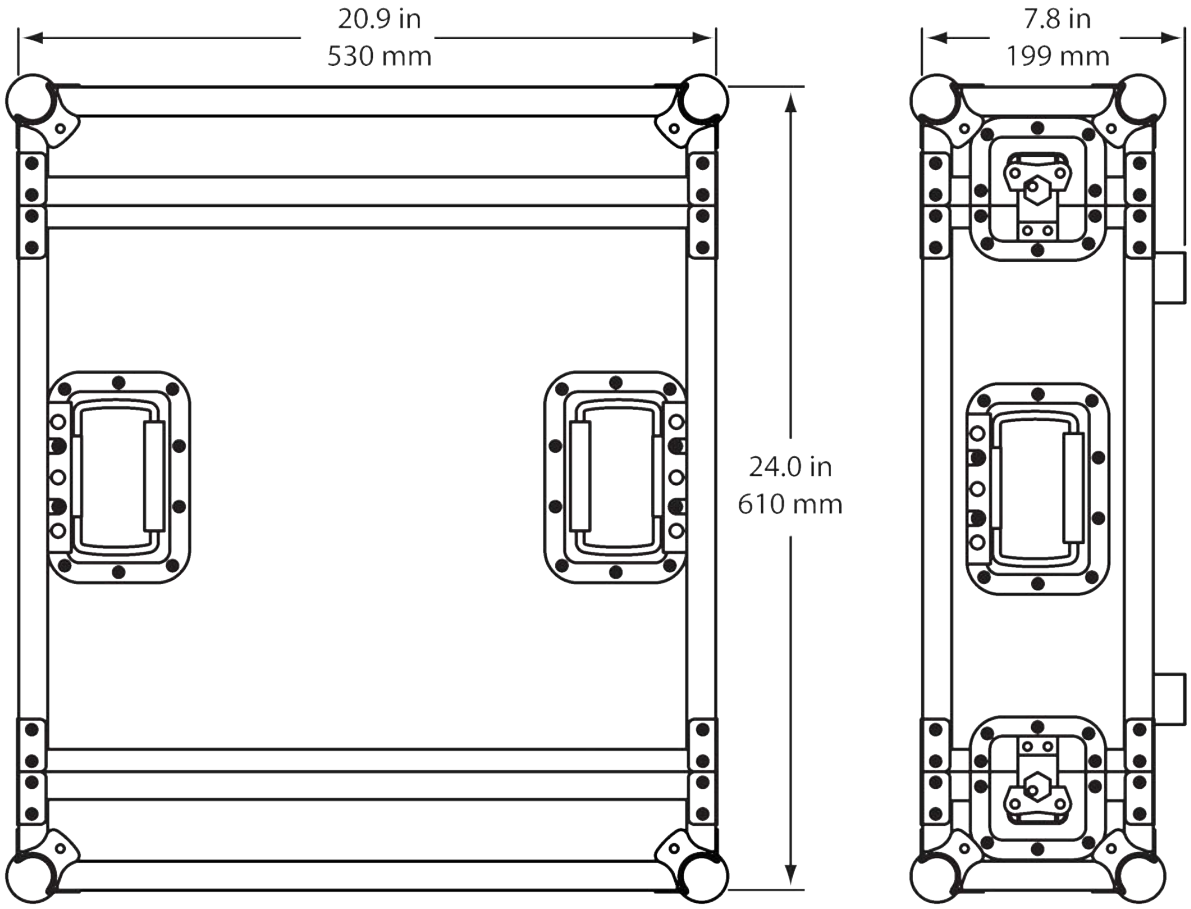
Features

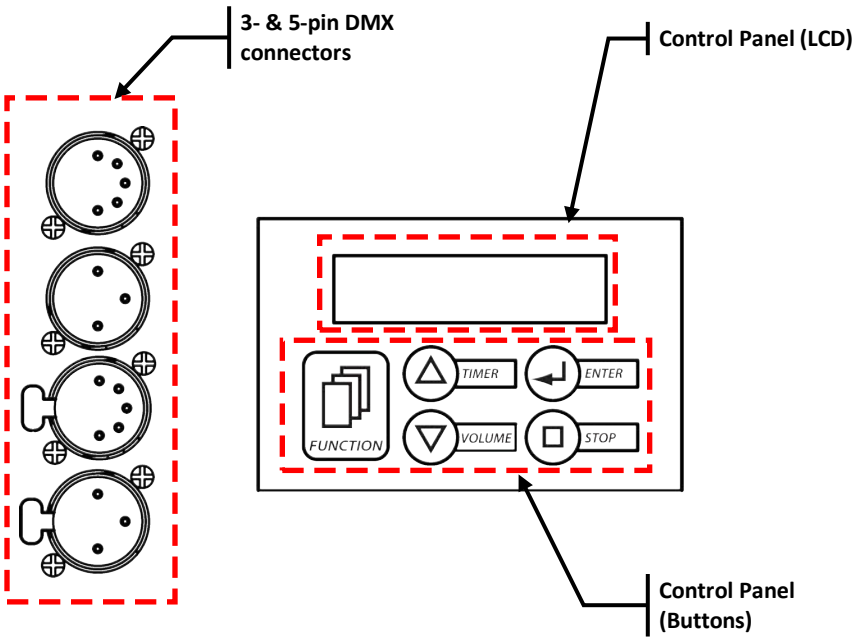
- Operating mode:
  2-channel: Output volume, fan speed
- Continuous output
- Haze output and fan speed controllable locally or via DMX
- Stackable flight case
- Onboard system timer
- Resettable circuit breaker
- Silent operation

Additional Features

- Neutrik® powerCON® A connector
- 3- and 5-pin DMX input and output connectors
- LCD display

Product Overview





3. Setup

AC Power

This product comes in two models, each with a fixed input voltage power supplies, either 120 V, 60 Hz or 230 V, 50 Hz. Therefore, you have to order the correct model for the line voltage in your area.

Make sure that you are connecting this product to the proper voltage, as per the specifications in this guide, the product's user manual, or on the product's sticker.

Always connect this product to a protected circuit with an appropriate electrical ground to avoid the risk of electrocution or fire.

To determine the power requirements for the AmHaze™ see the label affixed to the side of the product. Alternatively, you may refer to the *Technical Specifications* chart in the *Technical Information* chapter of this manual.

The listed current rating indicates the maximum current draw during normal operation. For more information, you may download the "Sizing the Circuit Breakers" document from the CHAUVET® Web site.

Never connect this product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.

AC Plug

The AmHaze™ comes with a power input cord terminated with a Neutrik® powerCON® A connector on one end an Edison plug on the other end (US market). If the power input cord that came with your product has no plug or you need to change the plug, use the table below to wire the new plug.

Connection	Wire (US)	Wire (Europe)	Screw Color
AC Live	Black	Brown	Yellow or Brass
AC Neutral	White	Blue	Silver
AC Ground	Green/Yellow	Green/Yellow	Green

Disconnect this product from the power outlet before resetting the breaker.

Resetting the Breaker

This product is equipped with a resettable circuit breaker on the power input circuit.

If the breaker trips, all sections of this product will lose power. Please see the instructions below for resetting this breaker.

1) Remove the power cord from mains power.
2) Allow unit to cool for 15 minutes.
3) After 15 minutes, you may attempt to reset the breaker by pressing the button with your index finger.
4) Plug the product's power cord into the power outlet and continue using as recommended.

If the breaker does not reset (the breaker button will not remain inserted), contact CHAUVET® immediately, as this indicates a possible internal malfunction.

DMX Linking

You may link the AmHaze™ to a DMX controller using a standard DMX serial connection. If using other DMX compatible units with this product, it is possible to control them individually with a single DMX controller.

If you are not familiar with the DMX standard, or if you need information about the DMX cables needed to link this product to a DMX controller, you may download the "DMX Primer" document from the CHAUVET® Web site.

DMX Mode

The AmHaze™ uses the standard DMX data connection for its DMX 2-channel mode. You will find information about the DMX mode in the *Operation* chapter (configuration details), and the *DMX Values* section (individual channel values).

Mounting

Before mounting this product, read and follow the safety recommendations indicated in the *Safety Notes* section (page 2 of this manual).

Orientation

Always mount this product in any safe position while making sure that there is adequate room around it for ventilation, configuration, and maintenance.

Rigging

CHAUVET® recommends following the general guidelines below when mounting this product.

- When selecting an operation location, consider ease of access to this product for operation, programming adjustments, and routine maintenance as well as the vicinity to a suitable power outlet.
- Make sure to mount this product away from any flammable material as indicated in the *Safety Notes* section.
- Never mount the product in places where rain, high humidity, extreme temperature changes, or restricted ventilation may affect it.
- Never mount this product on a flammable or heat sensitive surface, such as carpet, linoleum, wood, paper, carton, or plastic.
- Never hang this product.
- Make sure that the place on which you mount this product can safely support its weight without vibrations. See the Technical Specifications for weight and size details.

Procedure

The AmHaze™ comes in a stackable flight case. You only need to find a suitable place to set it up.

Follow the instructions in the *Preparation* section to setup the AmHaze™ once properly located.

4. Operation

Preparation

Once installed, you have to prepare the AmHaze™ for operation. To do so, follow these steps:

1) Open both ends of the flight case.
2) Pull the fluid tank out of its location.
3) Remove the cap of the fluid tank.
4) Verify that the two plastic hoses attached to the cap are in place and in good condition.
5) Pour Chauvet haze fluid inside the tank.
6) Replace the cap of the fluid tank making sure that is tightly closed
7) Reinsert the tank in its location.
8) Make sure that the plastic hose that goes from the cap to the hazer is not bent.
9) To direct the haze up or down, pull the haze guide from the front panel and re-inserted in the desired position.

Only use CHAUVET® approved haze fluid. Otherwise, you might not have satisfactory results. In addition, the unapproved fluid can damage the AmHaze™, or it may cause harm to humans or animals.

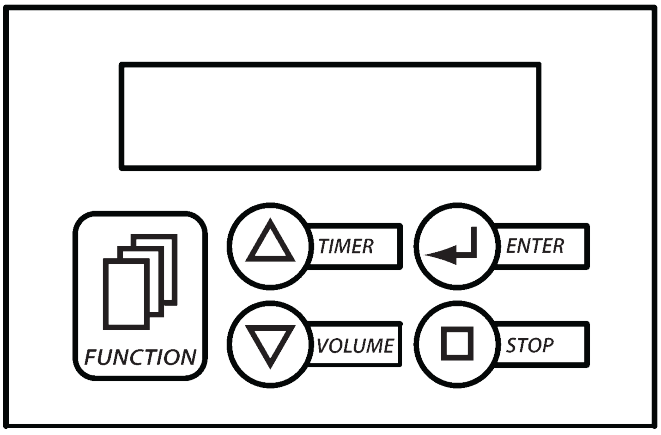
Control Panel Description

Before using the AmHaze™, you should become used to its control panel.

The table and diagram below will provide you with a description of its buttons and functions.

Button	Function
<FUNCTION>	Enters the programming mode
<VOLUME>	Controls the haze pump to modify the output volume
<TIMER>	Starts the timer controlled operation
<STOP>	Stops the current operation, whether manual or timer controlled
<ENTER>	Enables the currently displayed menu or sets the currently selected value in to the current function
<UP>	Navigates upward through the menu list and increases the numeric value when in a function
<DOWN>	Navigates downward through the menu list and decreases the numeric value when in a function

Control Panel Diagram



Startup

The AmHaze™ does not have an On/Off switch. As soon as you connect the AmHaze™ to the power outlet, it will start operating.

To start up the AmHaze™, do the following:

1) Insert the Neutrik® powerCON® A connector of the power input cord into the lockable (blue) socket on the back of the AmHaze™.
2) Turn the connector right until it locks in position.
3) Plug the power input cords to a suitable power outlet (the display will show "**Warming Up**").
4) Wait about two minutes for the warm-up to complete. During this time, the AmHaze™ will not produce any haze.
5) After warming up, the display will show "**Ready to Haze**".
6) Keep **<VOLUME>** pressed until the output volume reaches 100% and release it.
7) After reaching 100% output, you are now sure that the AmHaze™ is ready to work.
8) Press **<VOLUME>** again to stop haze production.

Repeat the Startup procedure after transporting the AmHaze™ or after a fluid refill.

Timer Operation

When in Timer mode, the AmHaze™ will produce haze in pre-configured time intervals defined by the **Time Between** and **Time On** menu options. In addition, the output volume during Timer mode is set by the **Timer Volume** menu option. See the *Programming* section for details about how to configure these parameters.

To operate in Timer mode, do the following:

1) Press **<TIMER>** (the display will show a countdown of the Interval timer).
2) When the counter reaches zero (**0**), the AmHaze™ will start producing haze.
3) The hazing duration is set by the Time On timer.
4) The hazing volume during Timer mode is set by the **Timer Volume** menu option.
5) This cycle will repeat itself until you press **<TIMER>** again or until the AmHaze™ runs out of fluid.

The AmHaze™ can produce continuous haze without reheating. This means that hazing will start immediately each time the Interval timer reaches zero (0).

Continuous Operation

In the Continuous mode, the AmHaze™ will produce haze without interruptions. The output volume is set in the Volume Output menus option. See the *Programming* section for details about how to configure this parameter.

To operate in Continuous mode, do the following:

1) Press **<VOLUME>** (the display will show **Volume** and value set in the Volume Output menu option).
2) This mode will continue itself until you press **<VOLUME>** again or until the AmHaze™ runs out of fuel.

The AmHaze™ can produce continuous haze without reheating. This means that hazing will start immediately each time you press <VOLUME>.

Programming

The Programming mode allows you to change the options that affect the various operating modes as well as setting the DMX address.

Timer Mode Parameters

These parameters determine the on and off intervals as well as the output volume when the AmHaze™ is in Timer mode.

To configure these parameters do the following:

1) Press **<FUNCTION>** repeatedly until **TIME BETWEEN** shows on the display.
2) Use **<UP>** or **<Down>** to set the time off timer (**1~200 s**).
3) Press **<FUNCTION>** repeatedly until **TIME ON** shows on the display.
4) Use **<UP>** or **<Down>** to set the time on (**1~200 s**).
5) Press **<FUNCTION>** repeatedly until **TIMER VOLUME** shows on the display.
6) Use **<UP>** or **<Down>** to set the haze volume (**1~100%**).

Continuous Mode Parameters

These parameters affect the haze and fan volumes when the AmHaze™ operates in Continuous mode.

To configure these parameters do the following:

1) Press **<FUNCTION>** repeatedly until **PUMP VOLUME** shows on the display.
2) Use **<UP>** or **<Down>** to set the haze volume (**1~100%**).
3) Press **<FUNCTION>** repeatedly until **FAN VOLUME XX%** shows on the display.
4) Use **<UP>** or **<Down>** to set the fan volume (**1~100%**).

During stand-by periods, the fan volume resets to 20% to keep a low noise level.

DMX Address

This parameter determines the DMX starting address of the AmHaze™. Refer to the *DMX Values* section to learn the values and assignments of the AmHaze's 2-channel mode.

The following steps will show you how to configure the DMX starting address.

1) Press **<FUNCTION>** repeatedly until **DMX-512** shows on the display.
2) Use **<UP>** or **<Down>** to set the DMX starting address (**001~511**).

DMX Values

2-Channel Mode

Channel	Function	Value	Percent/Setting
1	**Output Volume**	000 ó 005 067 ó 255	No output 2~100%
2	**Fan Volume**	000 ó 255	20~100%

5. Technical Information

Hazer Maintenance

Do not allow the hazer to become contaminated. After 40 hours of continuous operation, it is recommended to run a cleaning solution composed of 80% distilled water and 20% distilled vinegar through the system to prevent the accumulation of particulate matter in the heating element.

The recommended cleaning routine is as follows:

1) Empty all fog liquid from the machine.
2) Add cleaning solution to tank.
3) Plug unit in and allow it to warm up.
4) Run the unit in a well-ventilated area until the tank is almost empty.
5) Do not allow the pump to run dry.
6) Cleaning is now complete.

Before operating the hazer after cleaning it, do the following:

1) Refill with fog liquid.
2) Run the machine briefly to clear any cleaning solution from the pump and heater.

Refrain from spinning this product's fan(s) using compressed air.

Storage

Before storing this product, run distilled water (not tap water) through the system as described in the cleaning method above. This will help to avoid any particles condensing inside the pump or heater.

It is strongly recommended to test-run the machine on a monthly basis in order to achieve its best hazing condition.

NEVER operate the hazer without fluid at any time.

Troubleshooting Guide

Symptom	Cause(s)	Action(s)
Unit powers up but it generates no haze	Hazer is still cold	Wait until hazer is ready to operate
	Wrong fluid	Clean the hazer and use approved fluid
	Lack of fluid	Follow the fluid replenishment procedure
	Faulty pump	Send unit for repair
Haze comes out but it is too thick/thin	Erroneous haze volume adjustment	Adjust haze volume as explained
	Wrong fluid	Clean the hazer and use approved fluid
	Faulty pump	Send unit for repair
Circuit breaker/fuse keeps tripping/blowing	Excessive circuit load	Reduce total load placed on the electrical circuit
	Short circuit along the power wires	Check electrical wiring
Unit does not power up	No power	Check for voltage on outlet
	Loose or damaged power cord	Check power cord
	Built-in breaker tripped	Follow instruction to reset the breaker
	Faulty internal power supply	Send unit for repair
Unit does not respond to wired DMX or responds erratically	Wrong DMX addressing	Check unit addressing
	Damaged DMX cables	Check DMX cables
	Wrong polarity on the controller	Check polarity switch settings on the controller
	Loose DMX cables	Check cable connections
	Non DMX cables	Use only DMX compatible cables
	Bouncing signals	Install terminator as suggested
	Long cable / low level signal	Install an optically coupled DMX splitter before a long section of cable or right after the unit with the strong signal
	Too many units	Install an optically coupled DMX splitter after unit #32
	Interference from AC wires	Keep DMX cables separated from power cables or fluorescent/black lights
	Faulty DMX interface	Send unit for repair
	Faulty Main board	Send unit for repair

If you still experience technical problems after trying the above solutions or if you need to send the unit for repair, contact CHAUVET® Technical Support.

Returns Procedure

The user must send the merchandise prepaid, in the original box, and with its original packing and accessories. CHAUVET® will not issue call tags.

Call CHAUVET® and request a Return Merchandise Authorization (RMA) number before shipping the unit. Be prepared to provide the model number, serial number, and a brief description of the cause for the return.

The user must clearly label the package with a Return Merchandise Authorization (RMA) number. CHAUVET® will refuse any product returned without an RMA number.

DO NOT write the RMA number directly on the box. Instead, write it on a properly affixed label.

Once you have received the RMA number please include the following information on a piece of paper inside the box:

- Your name
- Your address
- Your phone number
- The RMA number
- A brief description of the problem

Be sure to pack the unit properly. Any shipping damage resulting from inadequate packaging will be the customer's responsibility. As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

CHAUVET® reserves the right to use its own discretion to repair or replace returned product(s).

Claims

The carrier is responsible for any damage incurred during shipping to this product or any part that shipped with it. Therefore, if the received merchandise appears to have damages caused during shipping, the customer must submit the damage report and any related claims with the carrier, not CHAUVET®. The customer must submit the report upon reception of the damaged merchandise. Failure to do so in a timely manner may invalidate the customer's claim with the carrier.

For other issues such as missing components or parts, damage not related to shipping, or concealed damage, the customer must make claims to CHAUVET® within seven (7) days of receiving the merchandise.

Contact Us

World Headquarters

CHAUVET®

General Information

Address:	5200 NW 108th Avenue Sunrise, FL 33351
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Fax:	(954) 929-5560
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United Kingdom & Ireland

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Technical Support

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World Wide Web

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Technical Specifications

Dimensions and Weight

Length	Width	Height	Weight
24 in (610 mm)	20.9 in (530mm)	7.8 in (199 mm)	46.3 lbs (21 kg)

Note: Dimensions in inches rounded to the nearest decimal digit.

Electrical

Power Supply Type	Range	Voltage Selection
Conventional (transformer)	120 V, 60 Hz or 230 V, 50 Hz	Fixed voltage models

Parameter	120 V, 60 Hz	240 V, 50 Hz
Consumption	830 W	900 W
Operating current	6.95 A	3.75 A
Circuit breaker	10 A	5 A

Power I/O	US/Worldwide	Europe
Power input connector	Neutrik® powerCON® A	Neutrik® powerCON® A
Power Cord plug	Edison (US)	Local plug

Haze Production

Parameter	Value
First heating-up time (cold hazer)	4 minutes
Heater temperature (after warm-up cycle completed)	446º F (230º C)
Fluid consumption (at 100% output)	4.7 ml per minute
Approved fluid	HFG
Tank capacity	5 liters
Output	3,000 cfm

Thermal

Max. External Temperature	Cooling System
104° F (40° C)	Fan

DMX

I/O Connectors	Connector Type	Channel Range
3- and 5-pin XLR	Sockets	2

Ordering

Product Name	Item Code	Item Number
AmHaze™ (120 V, 50/60 Hz)	99070313	AMHAZE
AmHaze™ (240 V, 50/60 Hz)	99070316	220VAMHAZE

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